

FARMWORKERS IN CALIFORNIA

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Courtesy of the California State Library

FARMWORKER CENSUS HIGHLIGHTS

Using census data (primarily the 1997 March Current Population Survey), we compare farmworkers to other major occupational groups. Analysis of the data reveals that farmworkers:

- Numbered 342,102 in California as of March, 1997.
- Are overwhelmingly Latinos: 78 percent.
- Are mostly males: 72 percent.
- Have the lowest family income of any occupation surveyed by the Bureau of Census: \$17,700. The median income of an individual worker is \$9,828.
- Have the highest poverty rate of any surveyed occupation: 38 percent of the workers are below the federal poverty threshold.
- Have the lowest educational attainment: 69 percent of the workers have no high school degree.
- Are second from the lowest, after the private housekeeper occupation, in home ownership: 38 percent of the workers live in a home that the family owns.
- Work year-round for the most part: 56 percent work 9 months or more.
- Have the second highest rate of working more than 46 hours a week compared to other occupational groups: 30 percent usually work 46 hours or more.
- Have one of the lowest rates of health insurance coverage: 40 percent are uninsured.
- Are overwhelmingly non-citizens: 69 percent – by definition, these include legal residents, workers with a permit, or undocumented.

These highlights are more likely to reflect the characteristics of agricultural workers that spend most of the year in the United States. Every year around April waves of seasonal agricultural workers come to California. The March Current Population Survey does not wholly capture this population due to the time of year it is conducted.

To adjust for this undercounting, and more importantly to provide additional insights into the lives of agricultural workers, we also conducted a literature review. Section 1 of the report contains the broader review; Section 2 offers more detailed charts using census data.

EXECUTIVE SUMMARY

California is the nation's largest agricultural state. It produces more than 250 different crops valued at nearly \$25 billion. California farmers are changing their crops to respond to consumer demand, producing more fresh vegetables, fruits and nuts. These high valued-added crops require more labor. During 1996, California produced nearly 14 million tons of fruits and nuts and 20 million tons of vegetables. This was more than half of the total U.S. production.

A change in the structure of the agricultural industry is also underway, as small farms are consolidated into fewer, bigger farms. Larger farms often grow a variety of crops over a longer season, providing extended periods of work for farmworkers. Finally, large numbers of recent immigrants from Mexico, Central America and Asia, many with low educational skills, provide a ready labor force. These trends interact to mean that more farmworkers than ever are working in California, and that many are working for longer periods of time in one area, some as residents.¹ Notably, around 55 percent of the state's agricultural workers are employed in the San Joaquin Valley.

Although farmworkers play a significant role in one of the state's most important industries, their working conditions are difficult: low earnings, poor or no health benefits, substandard housing, physically taxing and sometimes unsafe work conditions, and long hours. Four-fifths of U.S. farmworkers earn less than \$10,000 per year. Farmworker income is greatly affected by weather and crop conditions which can delay work in the fields. For example, this year's late rains have disrupted employment patterns and caused an estimated wage loss similar in magnitude to that of the 1991 freeze in the San Joaquin Valley citrus crop. Unemployment insurance will offset at best one third of the lost wages.

In January 1992, Governor Wilson's Farm Worker Services Coordinating Council held six hearings throughout the state. Testimony provided by farm workers, local housing and health care officials, farm worker advocacy groups and others revealed a broad range of concerns and areas of need which have long existed. These include insufficient affordable housing, health and safety problems, low educational attainment, lax enforcement of existing labor laws, and lack of information about and poor access to social services.

More recently (March and April 1998) the Agricultural Labor Relations Board (ALRB) held a series of hearings across the state to consider revamping field-access rules. These rules give union representatives a limited right to enter private property in order to organize workers. Testimony from various individuals revealed the same issues identified at the Governor's 1992 hearings. Conditions have not improved since 1992 and, in the case of housing, health, and safety, may have deteriorated.

Two main factors lie behind the worsening housing shortage: there are more farm workers and many farmers have ceased to provide housing. A shrinking supply with an increasing demand has led to higher prices in rural areas, resulting in housing costs that

are high relative to farmworker income. Farmers reportedly provide less housing than in the past because few units meet federal and state regulatory standards.

Many farmers hire their workers through farm labor contractors who directly employ, pay, and supervise the workers. Testimony at the Governor's hearings, and at the ARLB hearings, indicates that some farm labor contractors pay farmworkers by piece-rate, row rate or tree rate, and that these working arrangements sometimes can lead to working below the minimum wage. Some farm labor contractors run a closed shop, controlling housing, transportation, food and other necessities.

There are many laws that set standards for worker safety and employer labor practices. The Division of Labor Standards Enforcement, Department of Industrial Relations, enforces the state Labor Code for all California wage earners. The Division conducted 455 agricultural investigations in 1997, compared to 647 in 1993. Of the 455 employers investigated, 130 were cited for child labor, workers compensation violations, payments in cash and minimum wage violations. Cal/OSHA is charged with enforcing laws and standards protecting worker health and safety on the job. Cal/OSHA conducted 298 field sanitation inspections of agricultural employers in 1997; 56 percent were out of compliance. We estimate that there are 154,000 agricultural employers in California (assuming that two farm labor contractors are employed at each of 77,000 farms).

Farm workers and their children face many barriers in acquiring education. Children often work in the fields along with their parents to supplement the family income. Parents may be too tired at the end of a ten hour day to attend English as a Second Language (ESL) classes. Those that do attend classes have a difficult time, since their educational level in their native languages is often low. Farm workers and their children live in rural areas, where classes may not be available. Migration patterns and lack of transportation are other problems.

Farmworkers often face serious health problems, given the taxing physical labor required to tend and harvest many crops. Agriculture is a fairly dangerous occupation, with equipment accidents and pesticide exposure as primary concerns. Most farmworkers do not receive health care insurance through their employment, many are not insured. Wages at or below poverty level and unsanitary working conditions are linked to health problems such as malnutrition, poor dental care, communicable and parasitic infectious diseases and development disabilities in children.

There is a serious deficiency of data about the farmworker population. Most importantly, this population is generally undercounted by the Census. There are probably many more farmworkers in California than official records suggest. Inaccurate data makes it difficult to determine the seriousness of housing, health and educational needs and the types of services required by this population. It also means that California is not receiving its fair share of federal funds for programs (such as the Job Training Partnership Act) which are allocated on a population basis. Another useful source of data, the California Employment Development Department's agricultural survey, ended as of December, 1996, due to "complications with data sources."

Section I

A REVIEW OF THE LITERATURE



Courtesy of the California State Library

CALIFORNIA AGRICULTURE IS BECOMING MORE LABOR INTENSIVE

California is the nation's largest food and agricultural producer, producing nearly \$25 billion in value during 1996. Nearly one-third (29 million) of California's 100 million acres of land are devoted to agricultural production, producing 55 percent of the nation's fruits, nuts and vegetables.

Americans and consumers in other countries demand more fruits and vegetables than ever before. To satisfy this increased demand for fresh produce, high-value, labor-intensive specialty vegetables, fruits and nuts are increasingly replacing the cultivation of mechanized crops such as hay, oats, and barley. Eighty percent of California agriculture is now planted in labor-intensive crops.² For example, the cut flower and ornamental plant industry is the most rapidly expanding segment of California farm output: "Farm cash receipts from the sale of U.S.-grown ornamental horticultural products now bring American farmers more revenue than does all of U.S. wheat or cotton production."³

These crops require more farm labor: there has been a 22 percent increase in seasonal labor demand over the last 20 years.⁴ For example, over a seven year period, farm employment doubled during the peak spring and summer months in Santa Barbara County; "strawberries alone added approximately 8,000 new jobs by increasing cultivation from under 1,000 to nearly 5,000 acres".⁵ One researcher concludes that,

It is the state's new-found prosperity in labor-intensive, high-value crops that ultimately attracts immigrant and migrant farm workers from Mexico. And it is the affordability of Mexican immigrant and migrant labor that, in part, explains the booming agricultural economy.⁶

Demand for farm labor is highly dependent on the many natural uncertainties associated with agriculture such as bad weather and pests. The 1998 growing season was delayed due to the state's long rainy spring, resulting in less labor demand early in the season. Conversely, according to an article in the Fresno Bee, farmers are concerned about potential labor shortages later on, when many crops may ripen at once.⁷

ESTIMATES OF THE NUMBER OF FARMWORKERS VARY

Estimates of the number of farmworkers vary significantly depending on the source of the data, from 470,900 (EDD, August 1997) to 900,000. Noted researcher Dr. Philip Martin of UC Davis states that “California fruit and vegetable production will continue to require about 800,000 to 900,000 workers sometime during the year to fill the equivalent of 300,000 to 350,000 year-round jobs.”⁸

The 1997 March Current Population Survey (CPS) estimated that there were 342,000 farm workers in the state. However, this yearly survey may significantly underestimate the number of farmworkers since many do not start work until the summer.⁹ A number of farmworkers live in unofficial dwellings, which are often missed by the Census Bureau, also contributing to an undercount. For example, according to the Parlier Health study in Fresno County, (see page 24 for a more detailed discussion) about 28 percent of farmworkers were not counted by the U.S. Census because they lived in unofficial dwellings.

The characteristics of many migrant and seasonal farmworkers make it difficult to collect data on their situation. They often do not have a fixed address and work intermittently in various agricultural and non-agricultural occupations during a single year, with only casual employer-employee links. Many live in rural, often remote, areas. Many farmworkers have limited English-speaking abilities, relatively low educational levels, and are unfamiliar with or distrustful of government agencies and agents, such as Census enumerators.

WHO IS A FARMWORKER?

The March, 1997, Current Population Survey found that farmworkers are overwhelmingly Latinos (78 percent) and male (72 percent). Nearly 70 percent of farmworkers are not citizens; by definition, these include legal residents, workers with a permit or undocumented.

A 1988 survey by the U.S. Department of Labor found that 92 percent of California fieldworkers were not American-born. They were mostly from Mexico and Central America. A later survey found that 80 percent were male, two-thirds were under age 35, and seven percent under age 18.

The National Agricultural Workers Survey (NAWS), an interview-based survey of people performing seasonal agricultural jobs, provides an extensive picture of migrant farmworkers. The 1993 NAWS found that about “four out of ten farm workers migrate, for at least part of the year, in order to obtain work. Three of ten workers are ‘shuttle migrants’ between Mexico and the U.S., while one in ten workers ‘follows the crops’.”¹⁰ Only 3 percent of the migrants are non-Hispanic U. S. born workers. Migrants are defined by NAWS as someone who travels 75 or more miles in search of farm work.

Farmworkers are not a homogenous group, either in terms of demographics, employment or economic well-being. For example, a significant population of Asian immigrants works in agriculture in the San Joaquin Valley, which is home to over 65,000 Lao, Hmong, and Mien refugees and their families.

At one end of the spectrum is a farm worker in the Salinas Valley who may have worked for the same employer for a number of years, owns his house, speaks English, and has children in school.¹¹ On the other end is a 19 year old from Oaxaca, Mexico, who has just paid a “coyote”^{*} \$1,200 to help him cross the border. He travels to an area where others from his village are located and finds a job through a farm labor contractor. This farmworker speaks no English and in many cases does not speak, read or write Spanish very well or speaks an Indian language. He will most likely return to Oaxaca as soon as the harvest season is over.¹²

Mixtecs

The Mixtecs are an indigenous people from a poverty-stricken rural region in southern Mexico, Oaxaca. They speak their native dialect, limited Spanish and very little English. Most are illiterate. As a group they have experienced discrimination in Mexico, a pattern that can continue in the isolated rural communities of California.¹³ According to a 1991 California Institute for Rural Studies estimate, there were between fifteen and thirty thousand Mixtecs working and living in agricultural towns across California.¹⁴ A more recent estimate is that 50,000 Mixtec Indians live in California, over one third of them in Madera County.

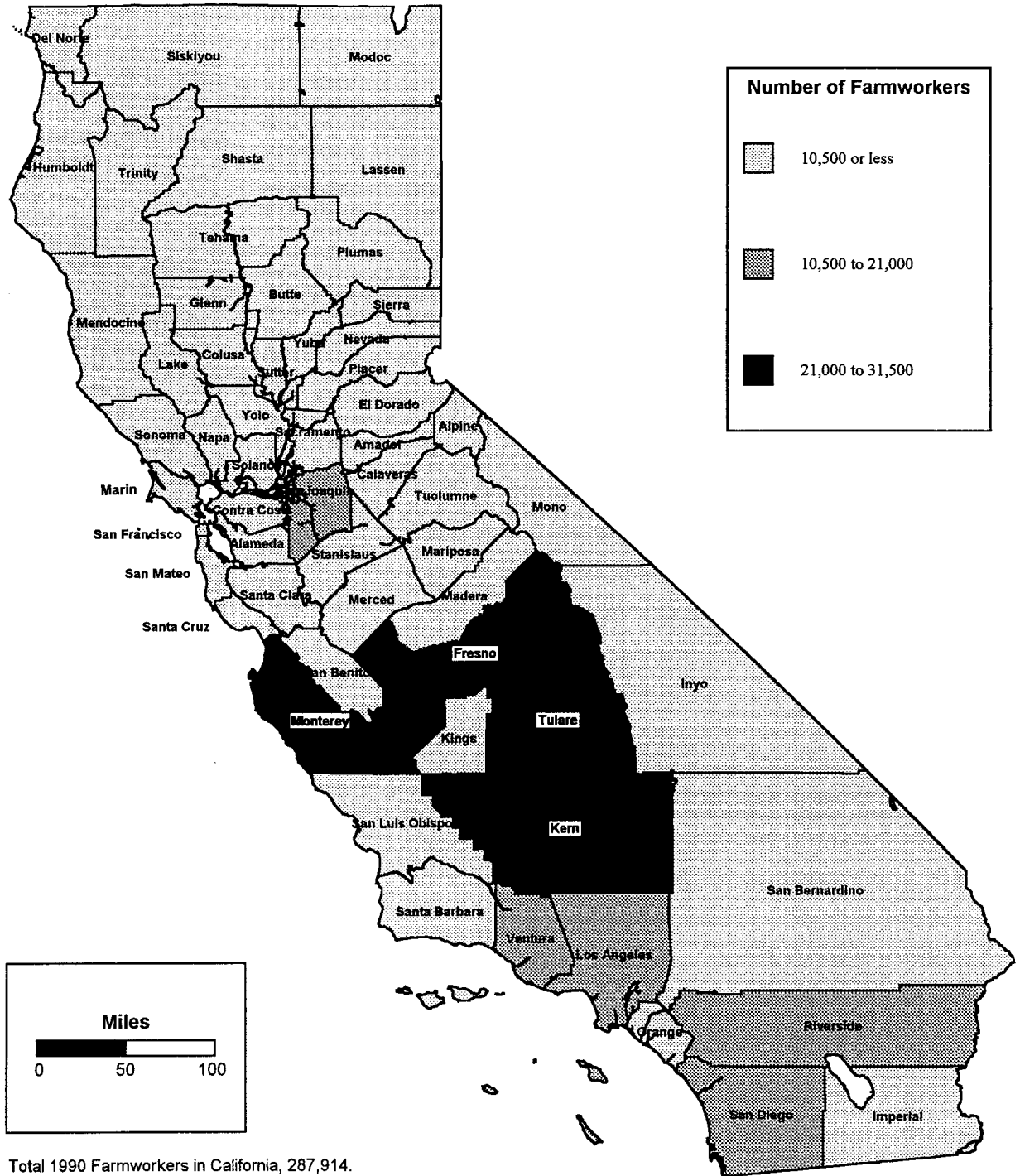
^{*} “Coyotes” assist immigrants to cross the border illegally in return for payment.

Geographic Location

The Employment Development Department's 1996 Agricultural Survey presents the following data describing the geographic location of farmworkers in California.

Approximately fifty-five percent of the state's agricultural workers were employed in the San Joaquin Valley region in 1996. The South Coast and Central Coast regions had the next largest shares of agricultural employment with nearly seventeen percent and sixteen percent, respectively. Agricultural employers in the Desert region hired nine percent of the agricultural workers in the state. The Sacramento Valley and the North Coast regions employed approximately seven percent and four percent, respectively. These 1996 percentages indicate that agricultural employment fluctuates very little between regions, since they are quite consistent with past years' percentages.¹⁵

Farmworkers in California, 1990

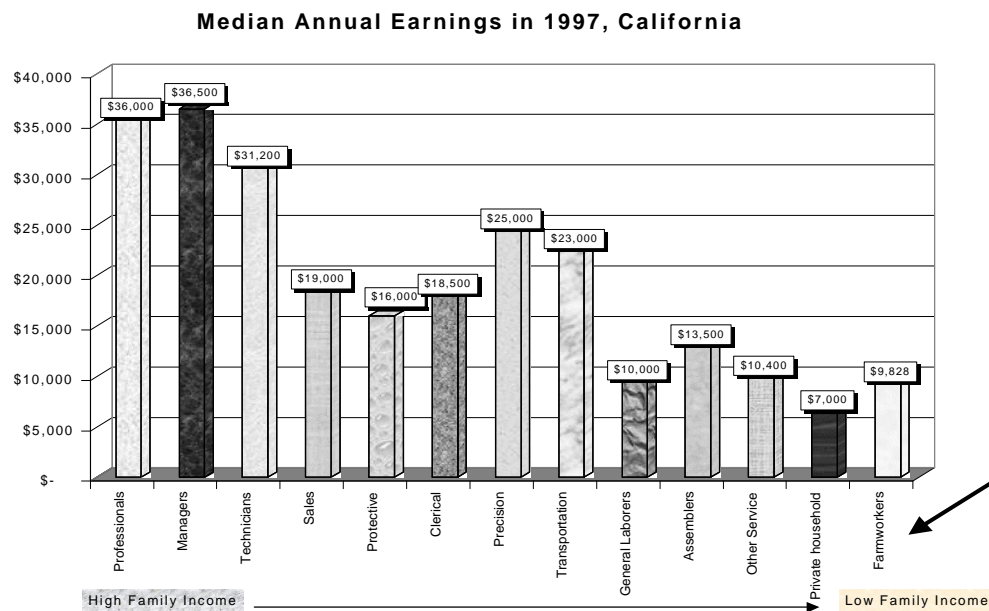


INCOME

About 80 percent of U.S. farm workers earn less than \$10,000 per year; half earn less than \$5,000. The 1995 California Farm Employers Labor Service (a subsidiary of California's Farm Bureau Federation) wage survey found that wages for entry-level seasonal farm workers averaged \$5.22 per hour.

According to the March 1997 CPS, California farmworkers have the lowest family income of any occupation: \$17,700, with a median income of an individual worker at \$9,828 (see chart A). A majority of farmworkers work nine or more months during the year. Nearly one third report working 46 or more hours during the week. Many farmworkers patch together a series of short-term agricultural jobs in order to provide an annual income for themselves and their families.¹⁶

Chart A



The California Employment Development Department's 1996 annual agricultural survey reports the following data:

Average annual weekly earnings in 1996 were \$278.47, a decrease of seventy-five cents per week from the 1995 annual average of \$279.22. The North Coast region had the highest average annual weekly earnings at \$312.57. The San Joaquin Valley region had the lowest average annual weekly earnings at \$267.03.

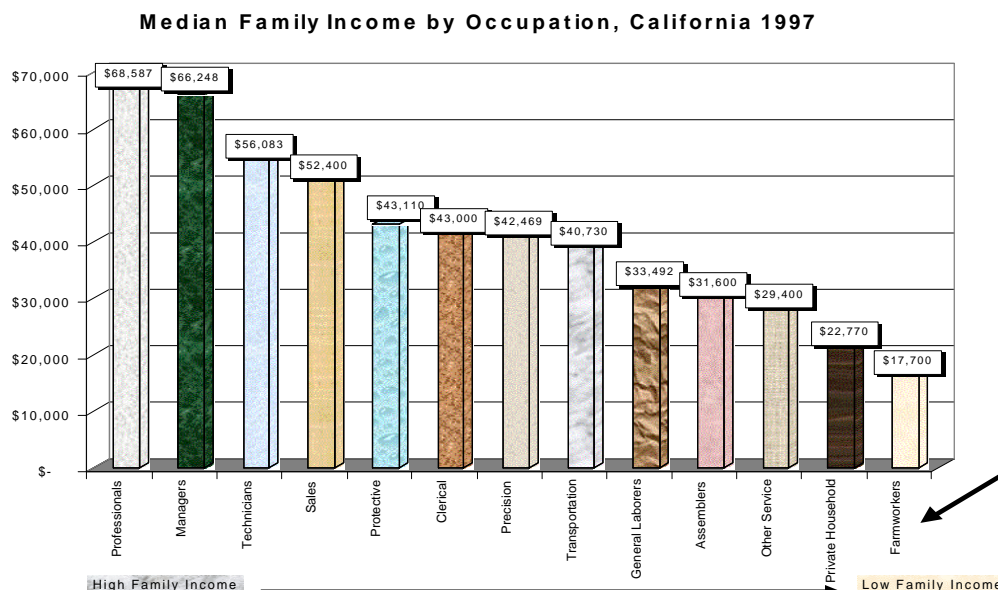
The California annual average for agricultural hourly earnings was \$6.71 in 1996, an increase of three cents from the 1995 amount of \$6.68. Annual average hourly earnings for all agricultural activities were highest in the North Coast region with \$7.55 and lowest in the San Joaquin Valley region with \$6.45.¹⁷

It will be more difficult to assess California farmworker income in the future. The Employment Development Department reports that it suspended collecting data for its agricultural survey as of December, 1996, due to “complications with data sources.” Some farmworkers earn less than the minimum wage. This occurs because in many instances workers are paid on a piece-rate basis. For example, a 1991 survey in the raisin industry found that workers were paid an average of 16 cents per tray.¹⁸ Workers averaged nine hours of work per day and earnings ranged from below the minimum wage at the time (\$4.25) to \$6.25, with a few workers reporting wages up to \$8.00 per hour. Worker earnings determined on a piece-rate basis (or per tree or row) are sensitive to several factors including worker skill, vine and crop conditions, weather conditions, and the piece-rate paid by employers.

The uncertainties associated with agriculture as a business also affect farmworker income, particularly the weather. A rainy spring has delayed the 1998 growing season, resulting in less work. A UC agricultural advisor estimates a loss of \$6 to \$10 million in farmworker wages in Fresno County alone, spread among the county’s 15,000-20,000 seasonal farmworkers.¹⁹ Unemployment insurance will offset at most one third of the lost wages. This impact is similar to that of the 1990-91 freeze in the Valley citrus crop. At that time, state legislation was enacted that extended unemployment benefits for another 26 weeks for farmworkers, packing house employees, and other workers who lost their jobs as a result of the freeze.²⁰

Farmworker families typically make ends meet by pooling their resources. For example, a family of six may have at least two family members working full-time while two others work part-time and intermittently. Family members share their resources in an attempt to prosper and provide for improved opportunities for future generations.²¹ “Despite having low income levels and large families, rural immigrant settlers rarely use welfare services and other forms of state and federal public assistance.”²²

Chart B



EMPLOYMENT

Farm work is seasonal and most farmworkers experience regular periods of unemployment. Some do not qualify for unemployment insurance. California counties in which agriculture is an important industry typically have very high unemployment rates. Imperial County had the highest unemployment rate of any county in May, 1998, at 22.8 percent. Other large agricultural counties had unemployment rates above ten percent.

However, unemployment is more concentrated in farmworker communities. For example, 90 percent of the residents of the City of Orange Cove in Fresno County work in agriculture. According to a recent article in the *Fresno Bee*, “the impoverished city is beset with double-digit unemployment—about 25%—even during the summer months.”²³ These impoverished rural communities are growing in California, as illustrated in the following case studies.

Guadalupe Case Study

A recent study of rural California by a researcher at UC Riverside highlights the City of Guadalupe, which “...illustrates the rural population explosion as well as the resulting transformation of rural communities.”²⁴ The study found that more than 150 communities in California with a population of less than 20,000 mirror the experience of Guadalupe.²⁵

Guadalupe is a community in the Santa Maria Valley, in Santa Barbara County. The town grew from 3,225 to 5,479 inhabitants between 1960 and 1990. During that time the population changed from 18 percent Hispanic (in 1960) to 83 percent (in 1990). According to the analysis presented in the study, changes in agricultural employment practices in the 1980s resulted in hiring new migrants over settled farmworkers. Growers stimulated the new-worker recruitment, which kept wages low. Individual farm-worker annual income has remained under \$6,000. Household income has shown some modest improvement, probably due to an increased number of working household members.

The structures that housed seasonal farm workers in Guadalupe have been bulldozed. Most newcomers seeking agricultural employment in the Santa Maria Valley find housing in Guadalupe’s larger neighbor, the City of Santa Maria. Santa Maria grew from 39,600 to 61,200 inhabitants between 1980 and 1990; another 8,000 persons settled between 1990 and 1996. The Hispanic population grew 111 percent between 1980 and 1990.²⁶

Farm Labor Contractors

The agricultural industry is increasingly relying on farm labor contractors to supply workers. A 1992 study of the raisin industry by the Employment Development Department (EDD) found that employers were shifting to farm labor contractors in part to avoid the employment liability and increase their efficiency by contracting out the paperwork involved in hiring workers directly. Farm labor contractors are the employer

of record and are responsible for the payroll and documentation system required for their workforce.²⁷

According to a survey conducted by the Center for Agricultural Business Researchers in Fresno County, approximately 84 percent of employers who used farm labor contractors in 1991 stated that one reason for using them was to avoid dealing with various governmental regulations. The federal Immigration Reform and Control Act (1986) is one of several laws that requires employers to create a paper trail over hiring. Other regulations require withholding and documenting taxes, demonstrating health and safety standards, and paying workers' compensation, unemployment and state disability insurance.

The relationship between grower and farm labor contractor is generally an informal one. Ninety-three percent of employers in the raisin industry who relied on farm labor contracts in 1991 were working under a verbal agreement. EDD's mail survey found that farm labor contractors earned a commission of about 31 percent, minus employer-paid payroll taxes and insurance, including OASDI (7.65 percent), unemployment insurance (as high as 5.6 percent), and workers' compensation insurance (around eight percent base rate in 1991). The remaining ten percent or less is the profit margin for the farm labor contractor. Any shaving of the government-mandated deductions increases that profit margin, an incentive that has lead to abuse.²⁸

Farm labor contractors charge their workers for various services. Sixty-one percent of the workers interviewed for the EDD study paid the contractor for their transportation to the fields, between \$3.50 to \$4.00 for each round trip. Some contractors also provide lunch and housing, at prices set by them. All of the surveyed workers but one were charged for the cost of the equipment they used on the job, such as gloves and knives. California law (IWC 14-80) requires the employer to pay for any required equipment if the employee earns less than twice the minimum hourly wage.

The question arises as to the role and responsibility of the grower relative to that of the contractor. In 1997, "both the courts and the Clinton administration undertook new initiatives that are designed to remove all ambiguity: under the joint employer doctrine, nearly all parties directly involved in crop or garment production will fully share liability for conditions of employment."²⁹ On April 9, 1997 a U.S. Court of Appeals rendered a decision that held Bear Creek Farms, a cucumber grower, jointly liable for its labor contractor's violations of record keeping, safety, reporting and minimum wage regulations.³⁰ Section 1140.4 © of the Labor Code, states that "the employer engaging such labor contractor or person shall be deemed the employer for all purposes under this part."³¹

Sharecropping

A November 1995 article in *The Atlantic Monthly* focused on California's strawberry fields.³² The article reports that the industry's annual sales exceed over half a billion dollars a year, a fresh fruit crop second only to apples in the U.S. Labor costs account for between 50 to 70 percent of the total cost of production.

Sharecropping, which has existed in the California strawberry industry throughout this century (also known as tenant farming), provides an opportunity to lower labor costs. "In California today, about 40 percent of the strawberries are grown and harvested by sharecroppers, as are more than 50 percent of the raspberries and other bush berries; more than 50 percent of snow peas, up to 25 percent of squash and green beans and 20 percent of cherry tomatoes, according to Jose Millan, an assistant labor commissioner for the California Department of Industrial Relations."³³ Theoretically, the sharecropper operates like an independent contractor, and so relieves the farm owner of any liability for unemployment insurance, workers compensation, Social Security and Medicare taxes. As a practical matter, the articles raise the question of whether these closely tied arrangements, which bind the sharecropper to the farm owner, are really independent.

Labor Law and Safety Enforcement

Both the federal and state governments enforce labor and safety standards. The Division of Labor Standards Enforcement (Department of Industrial Relations) enforces the state Labor Code for all California wage earners. According to the Division, staff investigate the agricultural industry for violations of the minimum wage, overtime pay, child labor, cash payment, and workers' compensation. According to the data submitted by the Division, 455 agricultural investigations were conducted in 1997. Of the 455 employers investigated, 130 were cited for child labor, workers' compensation violations, cash payment, and minimum wage violations (see Table 1 below).

Table 1

Enforcement Activity in Agriculture Calendar Years 1993-1997									
Year	Agricultural Inspections Conducted	Ag. Citations Child Labor	Ag. Citations Workers Comp.	Ag. Citations Cash Pay	Ag. Industry Minimum Wage	Total Ag. Civil Citations	Ag. Criminal Citations	Penalties Assessment	Penalties Collections
1993	647	153	99	19	11	282	144	\$1,603,400	\$142,302
1994	589	74	62	19	18	173	87	\$998,300	\$97,108
1995	362	64	23	9	15	111	28	\$659,000	\$135,546
1996	449	65	59	25	19	168	45	\$786,200	\$139,575
1997	455	39	26	34	31	130	15	\$631,200	\$122,376
Source: Division of Labor Standards Enforcement, Department of Industrial Relations									

The state Division of Occupational Safety and Health (Cal/OSHA) is charged with ensuring safe and healthy working conditions for all California workers. This includes

enforcing all laws, standards and orders protecting worker safety and health on the job, including in agriculture. As a practical matter, given the relatively small number of enforcement staff at Cal/OSHA, which has broad enforcement responsibilities for all California industries, and the size of the agricultural industry, inspections are irregular and of limited impact.

One of Cal/OSHA's responsibilities is to enforce field sanitation. The Legislature enacted bills to improve standards and strengthen enforcement in 1990 and 1994.³⁴ The prescribed standard requires that toilet, potable drinking water and handwashing facilities be maintained and serviced in a clean, sanitary condition and kept in good repair at all times. Field Sanitation penalties are assessed for the following:

- No potable drinking water
- Potable drinking water not suitably cool
- No single-use drinking cup or fountain
- No toilet facilities
- Inadequate number of toilet facilities
- Unusable toilet facility
- No toilet paper
- No handwashing facility
- No potable handwashing water
- Inadequate supply of potable handwashing water
- No soap or hand towels

Table 2 details the number of annual inspections and the non-compliance rate.

Table 2 Cal-OSHA Field Sanitation Inspections And Non- Compliance Rate		
Year	No. of Inspections	Non-Compliance Rate
1992	300 inspections	65.0%
1993	485 inspections	61.4%
1994	592 inspections	57.3%
1995	462 inspections	56.3%
1996	298 inspections	55.7%
1997 to 9/19/97	190 inspections	58.9%
Source: Cal/OSHA Advisory Committee Meeting Handout, October 2, 1997.		

Table 3 provides a comparison of Division of Safety and Health inspection activity among three major industry groups.

Table 3

Division of Occupational Safety and Health On-Site Inspections and Violations Cited For Three Industrial Groups July Through September 1997			
Reason for Inspections	Agriculture	Construction	Manufacturing
Inspections			
Total	151	739	552
Accidental	40	173	179
Complaint	24	160	199
Referral	3	48	16
Follow-up	1	11	18
Unprogrammed Related [†]	4	115	14
Programmed	79	232	126
Violations			
Total	261	1,177	1,904
Other than Serious	210	815	1,420
Percent Serious	19.54%	30.76%	25.42%
Source: Department of Industrial Relations, Division of Occupational Safety and Health, 3/98			

Cal/OSHA inspections are conducted on employers. There are approximately 77,000 farms in California. Assuming an average of about two farm labor contractors per farm, there are an estimated 154,000 employers. Cal/OSHA conducted 298 inspections in 1997, on less than 1/5 of 1 percent of farm labor employers. Of the 298 inspections, only 44.3 percent were in compliance and the remaining 55.7 were out of compliance.

The California Occupational Safety and Health Standards Board (Board) has the authority to amend safety standards. According to a data review conducted by the *Sacramento Bee*, most requests for amendments are granted. Of the 406 applications filed since 1995 to amend worker safety rules, 332 were granted and the others were withdrawn or amended.³⁵ A June 8, 1998, article, "Coalition pursues shift in tractor worker rules," reports the tragedy of Rafael Martinez, who was crushed to death as he jumped from a moving tractor to its trailer to sort fruit. State safety regulations {8CCR 3441 (b)} prohibit the practice, under certain circumstances. It results in a dozen deaths each year and more injuries. The Board is currently holding hearings on whether to amend the regulations to allow workers to climb off their tractors, perform another job, and then jump back on.

[†] While on-site following up on complaint, inspect other contractors.

As detailed below, agriculture is a hazardous occupation, with a high frequency of occupational illness and injuries.³⁶ The following table provides the number of nonfatal occupational injuries and illnesses for agricultural production and agricultural services (separate Standard Industrial Classification codes).

Table 4

Number of Nonfatal Occupational Injuries and Illnesses for Agricultural Production and Agricultural Services					
Year	1992	1993	1994	1995	1996
AGRICULTURAL PRODUCTION					
Avg Employment	218,400	221,500	223,400	221,900	231,200
No. of cases	15,400	21,100	16,800	15,500	12,900
Lost workday of above cases	7,400	10,000	8,400	7,600	6,800
AGRICULTURAL SERVICES					
Avg Employment	202,000	209,600	227,000	237,700	260,800
No. of cases	19,400	18,600	20,800	19,200	22,800
Lost workday of above cases	10,000	9,300	10,900	9,400	10,600
Source: Division of Labor Statistics and Research.					

HOUSING

According to the March, 1997, CPS survey, farmworkers have the second lowest rate of home ownership of any occupational group (after private housekeepers): 38 percent live in a home that the family owns. Insufficient income is a serious barrier to home ownership; fewer than three percent of non-migrant seasonal workers qualify for market rate financing for new housing.³⁷ About one-fourth of all farmworkers live on the farm where they work. Nearly 40 percent live away from their families while doing farm work.³⁸

At the national level, an estimated 800,000 farmworkers lack adequate shelter. In 1995, researchers at the University of California at Davis conducted an assessment of the housing needs of California farmworkers. The study estimated that 250,000 farmworkers and their family members had inadequate housing, including 90,000 migrant workers and over 160,000 non-migrant seasonal farmworkers. "The housing shortage is so severe that in harvest-time visits to farming communities...over the last year, workers were found packed 10 or 12 into trailers and sleeping in garages, tool sheds, caves, fields and parking lots."³⁹

The amount of farmworker housing registered with the state has declined dramatically in the last two decades. In 1955, growers registered more than 9,000 facilities to house migrant and seasonal workers. By 1982, only 1,414 employer-owned camps were registered. In 1994, only 900 camps were registered, with a capacity of 21,310 workers.⁴⁰ In 1998, according to the Department of Housing and Community Development, there are only 500 farm labor camps registered.

In November 1991, Governor Pete Wilson created the Farm Worker Services Coordinating Council by Executive Order (W-2-91). The Council was charged with coordinating state services to farmworkers. The Council issued a report in November 1992, identifying the need for safe, affordable housing as the number one issue of concern. In testimony given to the Council, employers expressed their frustration with government regulations that they contended discouraged them from providing housing. In some instances, they simply had bull-dozed their labor camps.⁴¹

The Department of Housing and Community Development undertook a major effort to review the status of farmworker housing programs in the late 1980s. Four public hearings were held during 1987 to determine the appropriate roles for the state government and the private sector in providing housing for migrant farmworkers. The Department issued a report with 13 findings, including the five listed below:⁴²

1. A majority of migrant farmworkers who do not live in government-sponsored labor camps live in seriously substandard conditions.
2. Substandard housing conditions exist in areas with significant seasonal agricultural production.
3. Housing conditions are a major problem for both single migrant workers and migrant families.

4. Poor housing hurts migrant children's health, education, and general welfare.
5. Local officials vary in their support for housing migrant families.

The 1992 Parlier Health Survey found individuals living in tool sheds, garages, informal shacks constructed of plywood or sheet metal, abandoned automobiles, and even underneath porches. These living arrangements housed 28 percent of the total number of residents of the community. The researchers found that "back house" residents had less income and utilized social services, such as food stamps and MediCare/Medicaid, at a lower rate.⁴³

In 1991, the U.S. Environmental Protection Agency found 191 agricultural labor camps in California were in violation of the nation's Safe Drinking Water Act.⁴⁴

A group of farmworkers in Soledad, California solved their housing problem by forming an association to purchase their mobile home park. The "Cooperativa Santa Elena" was purchased with the assistance of legal-aid agencies and the National Cooperative Bank, a privately held institution that supports low-income housing. About 100 families live in the mobile home park, each paying about \$150 per month. "This is the only trailer park in the country that's owned and operated by campesinos."⁴⁵ ‡



Farmworker housing in Marysville, California

‡ farmworkers

HEALTH

Agriculture is the second most dangerous occupation in the United States. Data from the California workers compensation insurance system show that in 1992 California farmworkers experienced more than 35,000 on-the-job injuries, or 11.6 reported injuries per 100 full-time employees. In 1990, there were over 22,000 work-related disabling injuries to farmworkers in California alone. Each year, around 40 California farmworkers die on the job.⁴⁶ According to the National Migrant Resources Program, the life expectancy of migrant farmworkers is 49 years, in contrast to the nation's average of 75 years.⁴⁷

There is very little statewide data on the general health status of California's farmworkers or their families. However, according to the March, 1997, CPS, farmworkers have one of the lowest rates of health insurance coverage of any occupational group; 40 percent are uninsured. The 1993 National Agricultural Workers Survey found that 32 percent of California's hired farm workers have some form of health insurance through their employer.⁴⁸ This number may be high as many workers apparently confuse workers compensation insurance with health care insurance. Surveys of employers conducted by the Farm Employers Labor Service (FELS) indicate that about 13 percent of employers provide health insurance for seasonal employees. Family members are typically not covered.

Researchers report that most farmworkers are unaware of public health care assistance, such as Medi-Cal: "Documented agricultural workers think they are ineligible for assistance, and undocumented workers fear they will be reported to the Immigration and Naturalization Service."⁴⁹ Workers who do use Medi-Cal find that it covers only pregnancy-related or emergency health problems, which "...explains the observed overuse of emergency rooms by migrant farmworkers and their families."⁵⁰

Other barriers to health care include transportation, language, illiteracy, culture, lack of documentation, extensive and complex forms, and scheduling demands.⁵¹ For example, the majority of California's farmworkers do not own a vehicle and do not live near a health clinic. In the Parlier study cited on page 28, workers complained about long waits in the clinic, lack of respectful attention to patients, insufficient evening hours and of high fees charged to first-time visitors.⁵²

In some rural communities in California, the newest farmworkers are Mixtec Indians from Oaxaca, Mexico. They speak their own indigenous language and many do not practice Western medicine, further complicating the delivery of health care services. There are few Mixtec speaking health providers. "Diabetes and anemia occur in high frequencies among Mixtec women. Out of fifteen case studies followed, all had suffered from one or both of these illnesses."⁵³

Farmworkers spend long hours bending over to harvest low-lying crops such as cucumbers, beans, strawberries and squash.⁵⁴ They carry heavy bushels and buckets of produce. They harvest fruit from the top of ladders, wearing canvas bags strapped over

their shoulders, while filling the bags with 60 to 70 pounds of fruit. This heavy labor leads to reproductive and musculoskeletal problems.⁵⁵

A 1981 study in Tulare County gathered data on the relationship between work and health. Of the 467 families studied, work-related health problems accounted for 56 percent of all health problems reported.⁵⁶ Accidents were associated with farm machinery such as forklifts and tractors, and falling from ladders with bags full of fruit, causing fractures, sprains, contusions, puncture wounds, and lacerations.

The rising incidence of tuberculosis (TB) is a serious health concern. Between 1985 and 1992, the number of active TB cases in California increased dramatically among the Latino population. Migratory agricultural workers represented between 25 and 50 percent of the reported cases in some counties.⁵⁷ Agriculture has also been identified with the highest risk of occupational skin disease.⁵⁸ The effects of skin rash are often intensified because of sun, sweat, and lack of sanitary facilities.

Motor vehicle safety among farmworkers is a major problem. According to recent testimony before the ARLB, some farmworkers do not understand the motor vehicle laws. They may drive when they are tired, drive unsafe vehicles, drink and drive, not wear seat belts, and/or illegally transport groups of workers along with tools in the back of a truck.⁵⁹

Other Health Issues

- Unsanitary working and housing conditions makes farmworkers vulnerable to health conditions no longer considered to be threats to the general public, such as communicable diseases. For example, a 1989-1990 measles outbreak in Glenn and Fresno counties resulted in the deaths of 33 children.
- As a group, farmworkers suffer a higher incidence of malnutrition than any other sub-population in the country.⁶⁰
- Access to oral health care is severely limited, with waiting periods of up to six months for a dental appointment. Several studies cite oral disease as the most frequent health problem within the farmworker population.

Pesticides

Each year about 1,000 cases of acute occupational illnesses linked to pesticide exposure in agricultural settings are reported to the State of California.⁶¹ According to a study by James C. Robinson for the California Policy Seminar, exposure to pesticides and dangerous equipment are common in farm labor. This study found that surveys of farm laborers in California indicate that the vast majority have health complaints they attribute to agricultural chemicals, but only a small proportion seek medical treatment.⁶² Another researcher found that there is a substantial underreporting of acute pesticide-related

illnesses in California, with one analyst estimating that up to 80 percent of pesticide illnesses are unreported.⁶³

Exposure to pesticides can result in acute systemic poisoning—abdominal pain, nausea, dizziness, vomiting, headache, and malaise—or skin or eye problems, such as rashes, inflammation, or corneal ulceration. Other chronic health problems may include chronic dermatitis, fatigue, headaches, sleep disturbances, anxiety, memory problems, different kinds of cancers, birth defects, sterility, blood disorders, and abnormalities in liver and kidney function.⁶⁴ Pesticides are also of concern because of their possible association with delayed health effects, such as cancer and adverse reproductive consequences.

Agricultural workers suffer from respiratory illnesses due to exposure to respiratory toxins such as hydrogen sulfide, fumigants like phosphide and phosgene, ammonia, oxides of nitrogen from decomposing silage, herbicides and pesticides.⁶⁵ One study estimates that the effect of agricultural work on respiratory disorders in the farmworker population is equal in magnitude to that of cigarette smoking.⁶⁶

Table 5

Opportunities for Exposure to Pesticides	
Usually an avoidable exposure	Diluting and mixing; loading into applicators; applying to crop; flagging during crop dusting
Often an unavoidable exposure	Drift; contact with residues during harvesting, weeding, pruning
Frequently an unknown exposure	Eating or smoking in field; bathing, cooking with contaminated water
Source: <i>The Western Journal of Medicine</i> , 9/1992	

Different crops manifest different patterns of pesticide usage and illness.⁶⁷ For example, skin and eye poisonings are caused by field exposures to residues of sulfur as well as mixtures of other pesticides. Residue exposure to harvest and packing workers accounts for a large fraction of total poisonings. According to regulatory agency data, “workers in every [agricultural] job category can be exposed to daily doses of pesticides that significantly exceed levels determined to be safe.”⁶⁸ According to a survey of 373 farmworkers in San Joaquin County, only about 10 percent of the surveyed farmworkers had received pesticide training; 90 percent had not.⁶⁹

Community Health Case Studies

Two important case studies of towns populated predominately by farm workers and their families are the McFarland Child Health Screening Survey of 1989 and the Parlier Health Survey of 1992.⁷⁰

As a result of an unusually high incidence of cancer among children in the community of McFarland, the California Department of Health Services screened 1,697 children between the ages of 1 and 12 (90 percent of the eligible population) in 1991. The physical examinations revealed the following problems:

- 71 percent of the children required a medical referral to treat one or more adverse health outcomes,
- 40 percent of the children were referred for vision care,
- 37 percent of children needed dental care,
- 24 percent of the children had anemia,
- 15 percent of children under the age of four had incomplete immunizations,
- Half of the children over the age of 5 had never seen a dentist,
- Half of the children lacked a timely physical examination, including 8 percent who had never had a physical examination.

Parlier is a small city of 10,000 residents located 20 miles southeast of Fresno. The Parlier study found similar findings to those in McFarland with regard to dental and vision care.

- 42 percent of the sample had never been to a dentist.
- 60 percent of the sample had never been to an eye doctor.

San Joaquin Valley Health Facts⁷¹

Half of the State's approximately 800,000 migrant and seasonal farmworkers live and work in the San Joaquin Valley. Many reside permanently in the area.⁷² For this reason, we include the following data as a broad representation of communities in which many farmworkers live.

Demographically, the San Joaquin Valley is younger, poorer, and more Latino than California as a whole. In 1994, the average hourly earnings of a farmworker in the San Joaquin Valley was \$6.36. The average annual income was approximately \$7,500. All San Joaquin Valley counties have childhood poverty rates above the state average of 18 percent (1993). Tulare County's rate of 33 percent was the highest childhood poverty rate in the state.

Lack of access to prenatal care varies considerably in San Joaquin Valley communities; for example, from a high of 51 percent in the community of Huron to a low of 12 percent in Herndon/Pinedale, both in Fresno County.⁷³ Kern County (10 per 1,000 live births) and Fresno County (9.4 per 1,000) have the worst overall infant death rates in the State.

The San Joaquin Valley has lower rates of cancer deaths and tuberculosis than the state as a whole, and the lowest rates of AIDS in the state.

In the San Joaquin Valley, childhood anemia (low volume of red blood corpuscles in the bloodstream resulting in low energy, paleness, general weakness) was above the 1993

state average of 19.3 percent for children under age five. Childhood anemia in Kings County was 31 percent, in Merced 22.9 percent and Tulare 19.9 percent.

Births to adolescents varied from a low of 5 percent to a high of 25 percent among 61 sampled San Joaquin Valley communities. Kings, Fresno, Madera and Tulare counties had rates of 7 percent or higher in 1993, compared to a statewide rate of 4.6 percent.⁷⁴

All San Joaquin Valley counties rate at a “higher risk and special need” for the Special Supplemental Food Program for Women, Infants, and Children (WIC) for low-income pregnant, breast-feeding and post-partum women, infants and children up to the age of five who are at nutritional risk. Kern County has the greatest need (a rank of 11 out of 11); Fresno, Madera and San Joaquin rank 10 out of 11.⁷⁵

Cultural and language barriers are impediments to care, especially for Southeast Asian immigrant women and Mixtec farmworkers from Oaxaca, Mexico. An estimated 50,000 Mixtec Indians live in California, over one third of them in Madera County. Many do not speak Spanish or English. The San Joaquin Valley is home to over 65,000 Lao, Hmong and Mien refugees and their families.

CHILDREN'S HEALTH

There are no comprehensive statistics of the total number of children working in agriculture. A Government Accounting Office study estimates that about 25 percent of farm labor in the U.S. is performed by children.⁷⁶

The labor of these children is important to their family income. Many farmworkers are paid by piece-rate and their children can help to fill bins of fruit or vegetables, thin and harvest orchards, weed plants, or care for farm animals. Lack of childcare is another reason that children are in the fields. Parents bring their young children to work because they have no other place to leave them. As a result, children are exposed to the same hazards associated with farm work.

A review of the literature found that: "Children account for a disproportionate share of agricultural workplace fatalities and disabling injuries."⁷⁷ These include farm machinery, pesticides, poor field sanitation, substandard or nonexistent housing, unsafe transportation, and fatigue from doing physically demanding work for long periods.

Children are more susceptible to pesticide exposure than adults because they absorb more pesticides per pound of body weight and their developing nervous systems and organs are vulnerable.⁷⁸ "A recent study in New York State found over 40 percent of the interviewed children had worked in fields that were wet with pesticides, and 40 percent had been sprayed while in the fields or orchards."⁷⁹ Pesticide exposure results from touching the residues, breathing the air, drinking the water, eating the food and from inadequate sanitary facilities for washing, drinking water, and toilets.

Commonly reported health problems among the children of migrant farmworkers include lower height and weight, respiratory diseases, parasitic conditions, skin infections, chronic diarrhea, Vitamin A deficiency, and undiagnosed congenital and developmental problems. Children are also at high risk of infectious diseases that are spread by poor sanitation in the fields and in substandard housing.⁸⁰ Heat-related illnesses include heat stroke, heat cramps, heat exhaustion and dermatitis or skin rash. Children in the fields are injured falling from heights and by faulty equipment, knives, machetes, and vehicles. Irrigation ditches can be dangerous, as some children drown in them.

Migrant farmworkers and their families have poor physical health compared to the general population. The infant mortality rate among migrants is 125 percent higher than among the general population.⁸¹ A survey of migrant women and children in Wisconsin found that 11 percent of migrant children had chronic health conditions compared to national rate of 3 percent.⁸²

EDUCATION

There is very little statewide data on the educational status of farmworkers or their children. The data that is available is primarily for migrant children. Testimony provided by farmworkers to the Governor's Farm Worker Services Coordinating Council during six statewide public hearings held in 1992 elicited the following comments:⁸³

Farmworkers testified about "the need to learn English and the inability to access classes in English as a Second Language (ESL). Problems include overflowing enrollments in existing classes, insufficient classes in rural areas, and the lack of transportation to urban area classes."

Testimony also addressed the high dropout rates caused when children are removed from school to work in the fields to help support their families. Migratory work patterns also contributed to the children falling behind in school, exacerbating the dropout rate.

According to the March, 1997, Current Population Survey, 69 percent of farmworkers in California have not completed high school.

Language

According to the 1990 Census, at least 50 percent of farmworkers do not speak English well. In a recent study conducted by Mr. Mason, Director of the Center of Agricultural Business at California State University in Fresno, 80 percent of the farmworkers interviewed responded that they could not read English or understood only a few basic words. Eight percent also stated that they could not read in Spanish. According to Mr. Mason, more and more workers are arriving from Southern Mexico and Central America, where many individuals do not speak Spanish.⁸⁴

In 1993, San Joaquin Valley California Highway Patrol officials reported encountering many drivers who did not speak English and who might not be literate in their native language. These drivers often did not know the driving laws nor understand common road signs or principles of hazard prevention.⁸⁵

Migrant Education

Migrant farmworkers are a subpopulation of farmworkers. The definition of migrant farmworker varies substantially. For migrant education services, it is "if they have moved during the last 36 months because they or members of their family were trying to obtain temporary or seasonal employment in agricultural, dairy, fishing, or logging services."⁸⁶

Children of migrant farmworkers are among the most educationally disadvantaged children in the country. Multiple obstacles to educational achievement include

discontinuity in education, social and cultural isolation, strenuous work outside of school, extreme poverty and poor health, as well as limited English proficiency.⁸⁷

In 1990, the National Agricultural Workers Survey estimated 587,000 children of migrant workers moved once in the previous year. States identified 597,000 children in the U.S. as eligible for Migrant Education Program (MEP) Services in 1990, based on the criterion of migratory relocation in the last 6 months. In 1994, 657,373 children were identified as eligible.

During the 1992-93 school year, California had 30.8 percent of the Migrant Education Program national total, or 166,793 children. (Texas was next with 17.6 percent or 95,703 children.)

Table 6

National Age Breakdown – Migrant Education Program 1992-93 School Year		
K+ Pre K	(2-6 years)	14 percent
Elementary	(7-12)	47 percent
Secondary	(13-18)	35 percent
Late completers	(19-32)	5 percent
Source: U.S. Department of Education		

One quarter of all MEP participants in the U. S. were not proficient in English in 1992-93. In California, 28.2 percent of migrant students had limited English proficiency. Eighty percent were Hispanic. Of the adults, 84 percent spoke little or no English and 90 percent spoke a language other than English in the home.

Discontinuity in the school year contributes to lower academic achievement and high dropout rates. Children drop out to work and to care for younger siblings while parents are working, leading to higher absenteeism and a low graduation rate. Migrant youth have the lowest graduation rate of any population in U.S. public schools, estimated at 40 to 55 percent depending on the survey.

Section II

A STATISTICAL PROFILE OF FARMWORKERS RELATIVE TO OTHER OCCUPATIONS



Courtesy of the California State Library

What follows is a comparative analysis of farmworkers in California. The analysis below is unique in that farmworkers are compared to other occupational groups in a variety of areas. Moreover, in using the 1997 March Current Population Survey, we provide information from one consistent source. There are a few charts, however, where the information comes from the 1990 Census.

Please note that although the focus of the analysis that follows is on farmworkers, the charts can readily serve as a reference for other occupations.

ABOUT THE OCCUPATIONS

In making the comparisons, we define farmworkers as those that work directly in a farm related occupation. We exclude from the list farm operators, gardeners, and those in forestry or fishing occupations.

In the tables that follow, there are thirteen major occupational categories. Except for the farmworker category, the other occupations are provided by the Bureau of the Census and are grouped according to the Standard Occupational Classification. The occupational categories are self-explanatory in some cases. There are four that may not be. These are protective, precision, assemblers, and other service.

- Protective services are firefighters, police, guards, and correctional officers.
- Precision includes mechanics, carpenters, electricians, roofers, and other skilled workers.
- Assembler includes workers in an assembly line or operators of a machine.
- Other Services are bartenders, waiters, cooks, janitors, barbers, and any other service occupation not classified elsewhere.

Since the tables that follow have thirteen occupational categories, it is often helpful to think of them as belonging to three different educational groups. The first three categories (professionals, managers, and technicians) generally require more academic education. The next five categories (sales, protective, clerical, transportation, and precision) require schooling more along vocational lines. The last five categories (general laborers, assemblers, other service, private household, and farmworkers) are the least stringent in terms of educational requirements. Not everybody from each occupation falls neatly into such educational categories; the generalizations are useful however when viewing the tables that follow.

FARMWORKERS VERSUS OTHER OCCUPATIONS

According to the charts that follow, one can conclude that farmworkers are at the bottom of the socio-economic ladder in comparison to the other occupational groups. To make this point, we order the occupations according to family income in the following charts. In all but a few cases, there are big differences between farmworkers and the other occupations. Farmworkers stand out in ethnic composition, male representation, hours worked, citizenship status, home ownership, health insurance coverage, and educational attainment.

DEMOGRAPHIC COMPOSITION

Compared to other occupations in California, farmworkers are not as numerous. In California there are at least six occupations that have more than a million individuals. Three other categories have more than half a million. Farmworkers numbered 342,102 as of March 1997, which is probably a low figure¹. There are two other occupational groups that are smaller than farmworkers: protective and private household (see Chart 1).

Chart 2 shows that the farmworker occupation has the highest representation of Latinos. Of the 342,102 farmworkers, 78 percent are Latinos. The occupations that follow are assemblers and private household with over half of the workers being Latino. In the chart, the representation of Latinos decreases as one moves from left to right with professionals having the smallest share of Latinos.

Farmworkers do not have the highest share of male workers (see Chart 3). The following four other occupations have higher shares: transportation (94%), precision (92%), general laborers (84%), and protective (75%). Fifth in line are farmworkers (72%). The occupations with the fewest male workers are private household (4%) and clerical (26%).

¹ As noted in Section 1, this number may be low due to the time of year of the sample, before the peak of the agricultural season, and because of an acknowledged undercount by the Census.

Chart 1

Number of Workers Within Each Occupation, California 1997

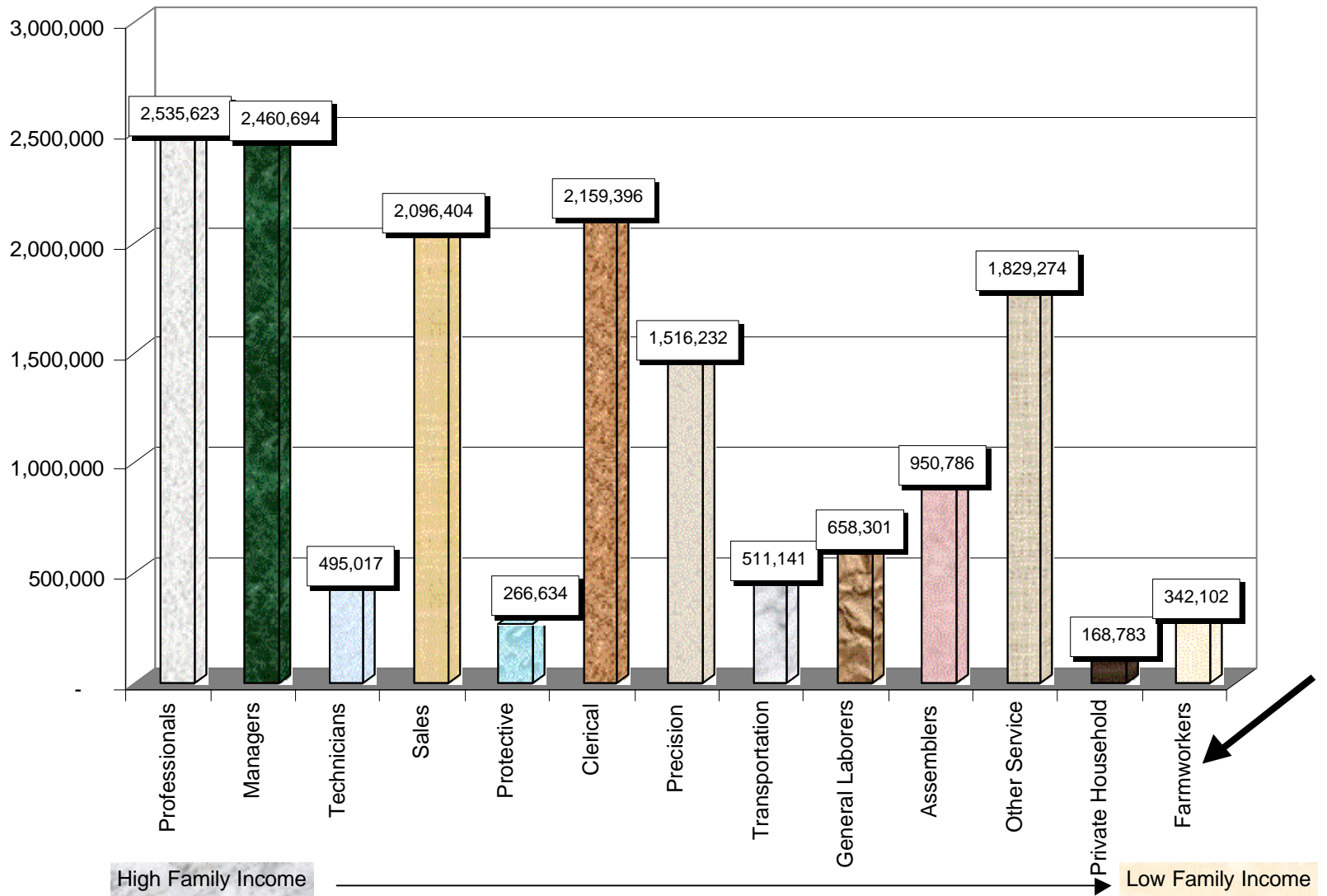


Chart 2
Percent Latinos Within Each Occupation, California 1997

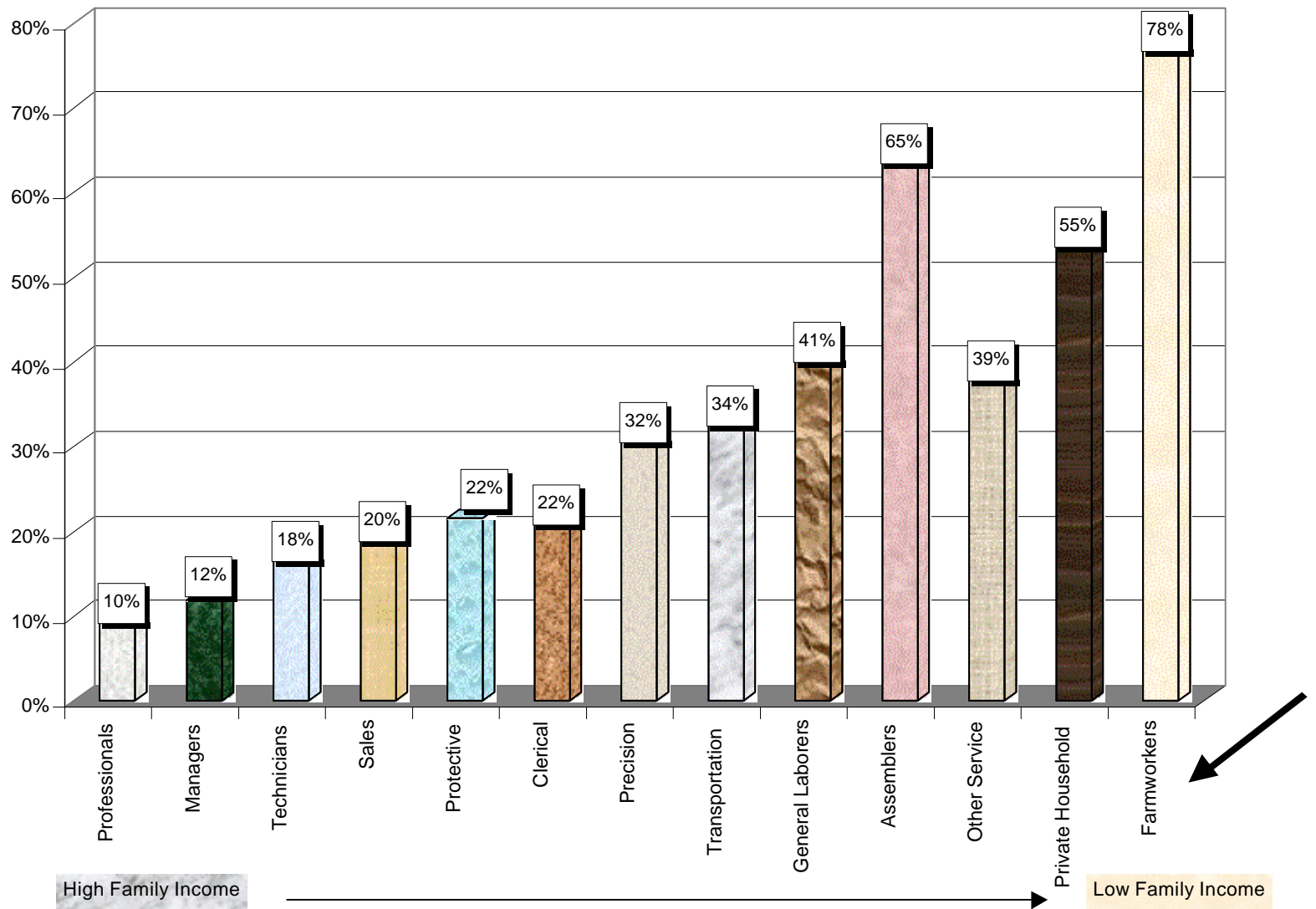
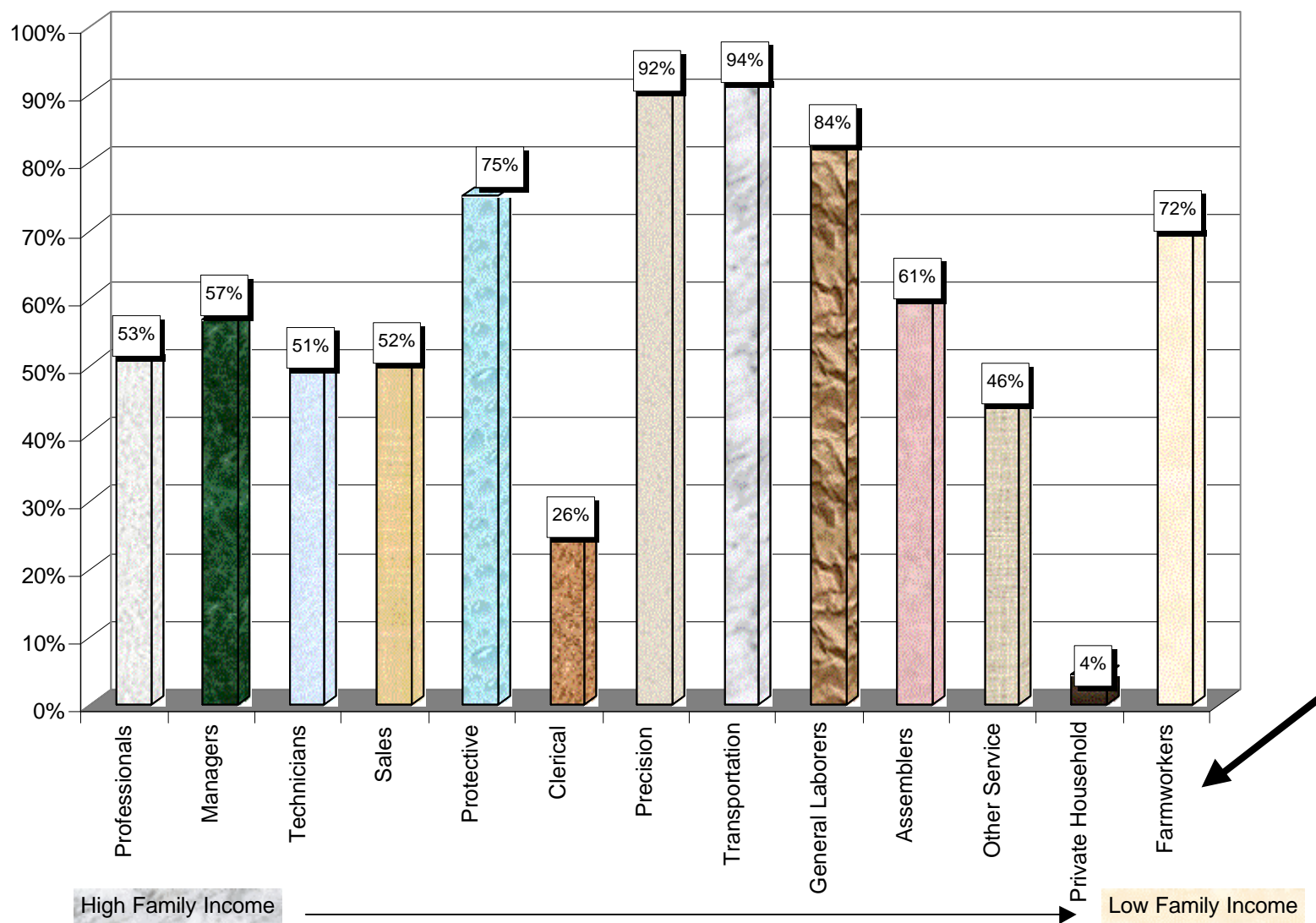


Chart 3
Percent Males Within Each Occupation, California 1997



INCOME AND POVERTY

In terms of family income, farmworkers rank the lowest of any group with an average annual income for the family of \$17,700 (see Chart 4). At the high end are professionals and managers with family incomes over \$60,000.

According to Chart 5, a typical farmworker makes \$9,828 a year, higher only than private household. Notice that the pattern of Chart 5 differs from that of Chart 4. The difference comes in the number of persons that work in the family and in the occupations of these other persons. For instance, a person in sales has a relatively low individual income, but if married to a technician, the family income increases to \$50,000.

Chart 6 differs from the income variables in that it also takes family size into account in determining poverty. Based on both family income and family size, Chart 6 shows that farmworkers have the highest poverty rates, with 38 percent of them being at or below the federal poverty level.

Chart 4

Median Family Income by Occupation, California 1997

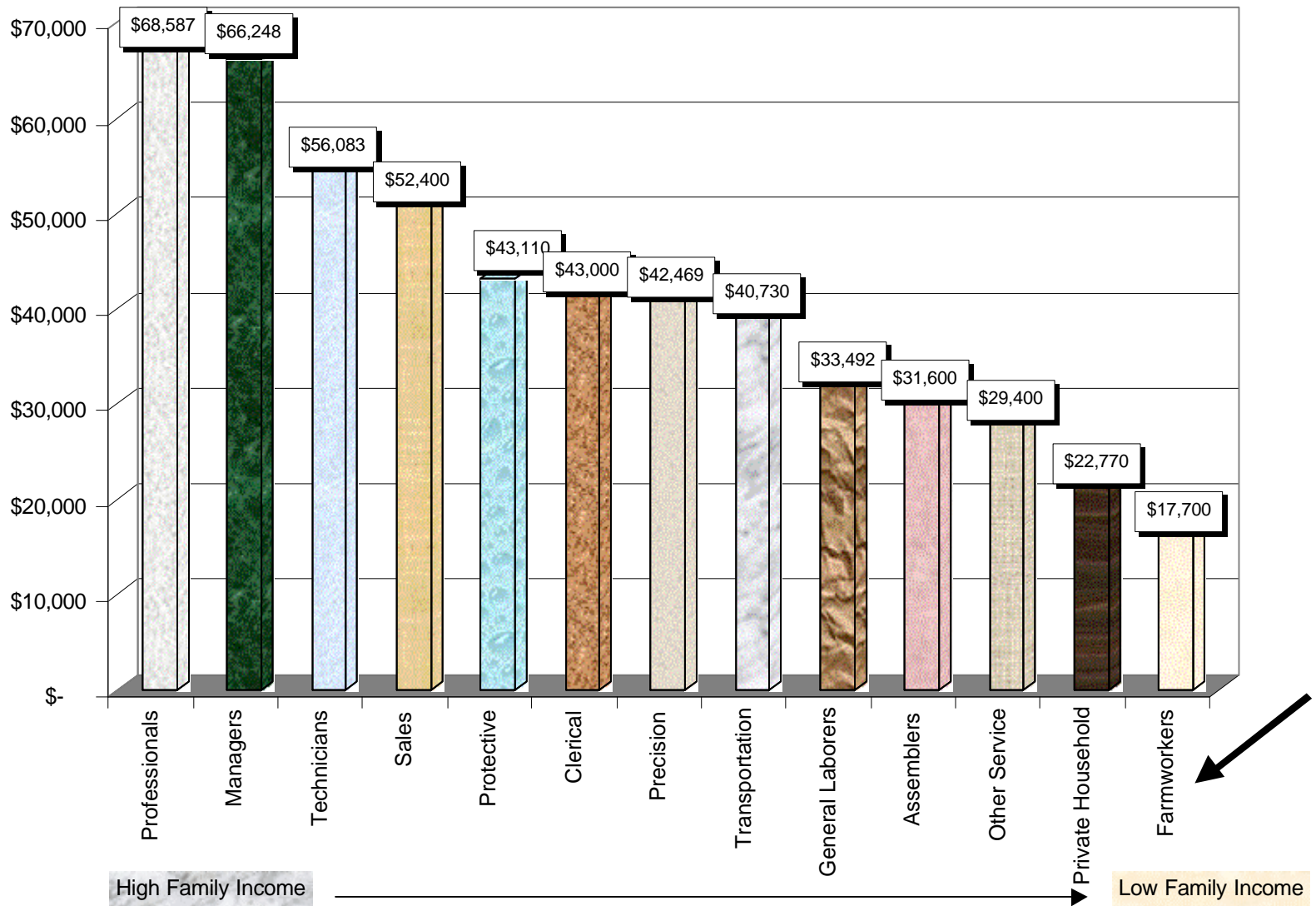


Chart 5

Median Annual Earnings in 1997, California

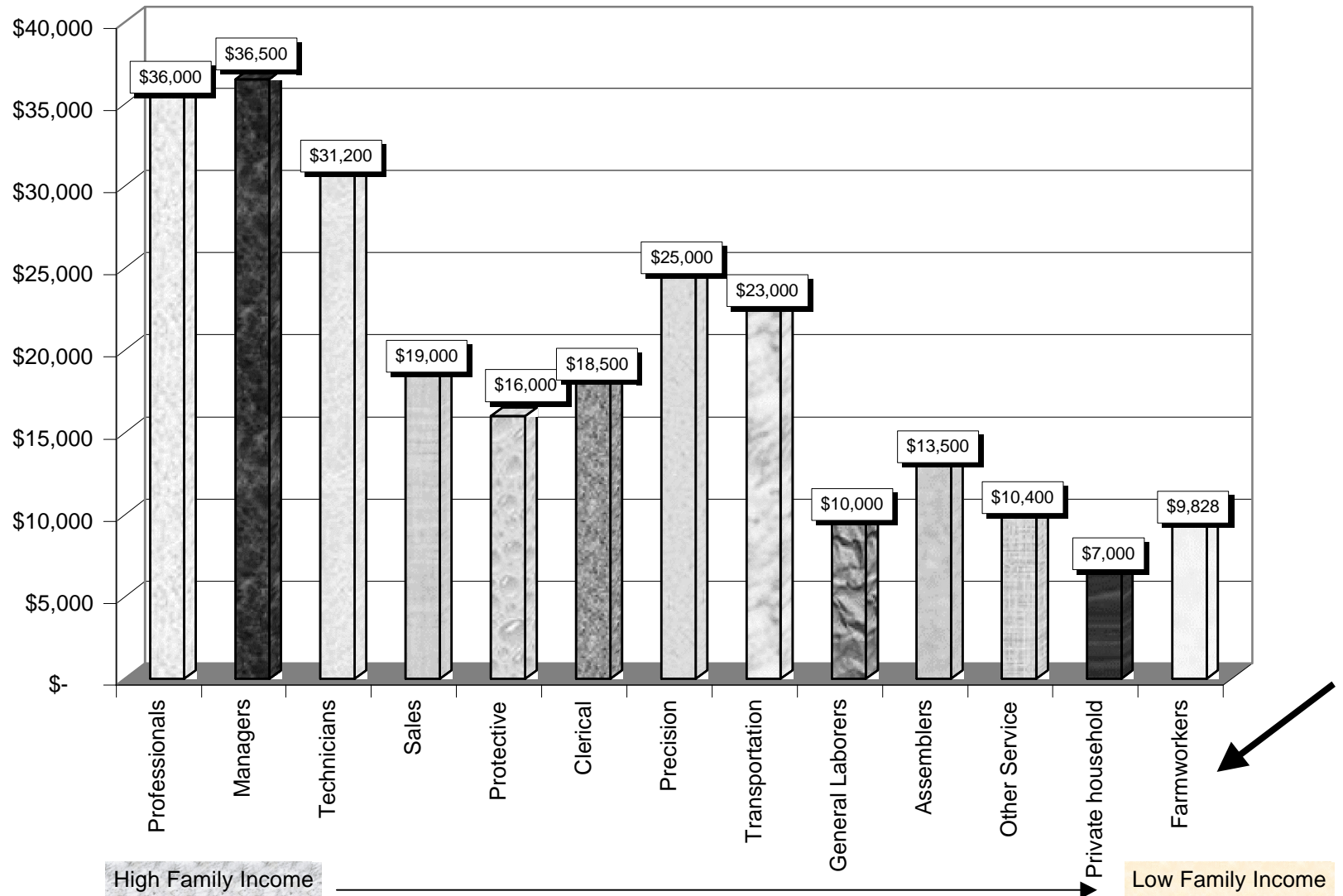


Chart 6

Percent of Workers Below the Federal Poverty Level, California 1997

